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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RANGANATHAN KRISHNAN and
SANJIV NANDA

Appeal 2009-007258
Application 10/810,457
Technology Center 2400

Before MARC S. HOFF, CARLA M. KRIVAK, and
CARL W. WHITEHEAD, JR., *Administrative Patent Judges*.

KRIVAK, *Administrative Patent Judge*.

DECISION ON APPEAL¹

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1-27. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE

Appellants' claimed invention relates to scheduling piconet transmissions (Spec. ¶ [0009]).

Independent claim 1, reproduced below, is representative of the subject matter on appeal:

1. A method of scheduling communications, comprising:

scheduling an inter-piconet transmission between first transmitting and receiving terminals including scheduling a power level for the inter-piconet transmission that satisfies a target quality parameter at the first receiving terminal; and

scheduling an intra-piconet transmission between second transmitting and receiving terminals, including scheduling a power level for the intra-piconet transmission that satisfies a target quality parameter at the second receiving terminal, the intra-piconet transmission being scheduled simultaneous with the inter-piconet transmission.

REFERENCES

Umeda	US 5,920,817	July 6, 1999
Agrawal	US 6,072,990	June 6, 2000
Palin	US 2003/0083015 A1	May 1, 2003
Cruz	US 2006/0046658 A1	Mar. 2, 2006
Gandolfo	US 7,184,767 B2	Feb. 27, 2007

Sun, *Interference-Aware MAC Scheduling and SAR Policies for Bluetooth Scatternets*, IEEE, XP-010635904, 2002, pp. 11-15.

The Examiner rejected claims 1, 2, 4-6, 8, 11-16, 18-20, 22, and 25-27 under 35 U.S.C. § 103(a) based upon the teachings of Gandolfo and Cruz.

The Examiner rejected claims 3 and 17 under 35 U.S.C. § 103(a) based upon the teachings of Gandolfo, Cruz, and Agrawal.

The Examiner rejected claims 7 and 21 under 35 U.S.C. § 103(a) based upon the teachings of Gandolfo, Cruz, and Palin.

The Examiner rejected claims 9 and 23 under 35 U.S.C. § 103(a) based upon the teachings of Gandolfo, Cruz, and Umeda.

The Examiner rejected claims 10 and 24 under 35 U.S.C. § 103(a) based upon the teachings of Gandolfo and Sun.

Appellants contend the combination of Gandolfo and Cruz fails to teach all of the limitations of claims 1, 2, 4-6, 8, 11-16, 18-20, and 25-27 (App. Br. 5). Appellants also contend Gandolfo fails to teach the scheduled inter-piconet transmission feature of claims 10 and 24 (App. Br. 9).

ANALYSIS

Claims 1-9, 11-23, and 25-27

The Examiner finds Gandolfo and Cruz teach scheduling inter-piconet and intra-piconet transmissions simultaneously (Ans. 13). That is, the Examiner finds Gandolfo's Fig. 4B teaches using a frame of time slots wherein each time slot enables transmission from a specific transmitter to a specific receiver (Ans. 13). Thus, the Examiner asserts, there can be multiple concurrent transmissions within a single frame in Gandolfo (*Id.*). The Examiner similarly finds Cruz teaches using time slots wherein each time slot is dedicated to a specific transmission between a specific transmitter and specific receiver (*Id.*). The Examiner also finds Cruz teaches enabling clusters of a network to transmit simultaneously (Ans. 5)

Appellants contend neither Gandolfo nor Cruz teaches or suggests simultaneous scheduling of intra- and inter-piconet transmissions (App. Br. 7; Reply Br. 7). We agree. The Examiner's finding that Gandolfo teaches

each time slot enables transmission from a specific transmitter does not teach simultaneous intra- and inter-piconet transmissions (Reply Br. 7). Similarly, the Examiner’s finding that Cruz teaches time slots dedicated to specific transmissions does not teach simultaneous intra- and inter-piconet transmissions (*Id.*). As Appellants assert, Cruz only teaches enabling clusters simultaneously, and does not teach simultaneous scheduling of intra- and inter-piconet transmissions, as claimed (App. Br. 7).

Therefore, the combination of Gandolfo and Cruz does not suggest the features of claim 1 and claims 2-9, 11-23, and 25-27, which rely on the arguments presented with respect to claim 1.

Claims 10 and 24

Appellants contend Gandolfo does not teach ““receiving in a first piconet information relating to a scheduled inter-piconet transmission from a second piconet”” because Gandolfo discloses nothing relating to ““scheduling transmissions whatsoever anywhere”” (App. Br. 9). However, as the Examiner finds, Gandolfo teaches a piconet controller using a beacon to define and assign time slots so each device knows when to transmit and when to receive (Ans. 11). The Examiner also finds Gandolfo teaches a controller can assign time slots to devices in different piconets (Ans. 12). We agree with the Examiner these findings meet the claimed feature of scheduling an inter-piconet transmission (Ans. 14-15). Appellants provide no additional arguments with respect to claims 10 and 24 in response to the findings in the Examiner’s Answer noted above (Reply Br. 8). Therefore, the rejection of claims 10 and 24 is affirmed.

Appeal 2009-007258
Application 10/810,457

DECISION

The Examiner's decision rejecting claims 10 and 24 is affirmed.

The Examiner's decision rejecting claims 1-9, 11-23, and 25-27 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(v).

AFFIRMED-IN-PART

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